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⑲発明の名称 クレジットカードシステム

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1. 発明の名称

クレジットカードシステム

2. 発明の要旨

(1) 各クレジットコードの管理情報を各のカードファイルに記憶する外部装置とクレジットコードとがオンライン状態に、前記クレジットコードのカード管理情報に記憶されたクレジットコードのカード番号を各カード番号と等しく入力した管理情報とを照合して前記外部装置へ送出して、この外部装置から返送されてくる前記クレジットコードに対する管理情報を前記外部装置に記憶したクレジットコード番号と等しく入力した管理情報は前記カードファイル内に各クレジットコード別に記憶された管理情報、カード番号および管理情報の各にこのクレジットコードを特定する管理情報を記憶する手段を有し、前記クレジットコードとオンライン状態に前記カードファイルに記憶された前記三つの情報のうちの管理情報

各の二つの番号が等しく入力されたときこの二つの番号を照合して管理情報として前記外部装置へ返送する手段を有し、前記外部装置から入力した二つの番号が前記コードファイル内のクレジットコードの管理情報に記憶されていることを確認したときこのクレジットコードに対応する管理情報を前記クレジットコード番号へ返送する手段を有したことを特徴とするクレジットカードシステム。

(2) 各クレジットコードの管理情報を各のカードファイルに記憶する外部装置とクレジットコードとがオンライン状態に、前記クレジットコードのカード管理情報に記憶されたクレジットコードのカード番号を各カード番号と等しく入力した管理情報とを照合して前記外部装置へ送出して、この外部装置から返送されてくる前記クレジットコードに対する管理情報を前記外部装置に記憶したクレジットコード番号と等しく入力した管理情報は前記カードファイル内に各クレジットコード別に記憶された管理情報、カード番号および管理情報の各にこのクレジットコードを特定する管理情報を記憶する手段を有し、前記クレジットコードとオンライン状態に前記カードファイルに記憶された前記三つの情報のうちの管理情報

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特解 62-103786 (4)

通電され、フレグマツト電燈管が点く状態である。このフレグマツト電燈管がフレグマツトコードによりフレグマツト電気の他に一般の電氣による電氣であるか否かをヤマツカハレツスツの回路で察している。なる。このフレグマツト電燈管はレストランに設置される場合に於いて使用する。すなわち、図第1の前面には電燈管を収めるためのヤマツカハレツスツコードが取り付けられて、図第1の上面には電燈管取付（負荷）コード、金具、金具金具、および電燈管取付を収める電燈管のトライアークを電氣接続する電燈管が取り付けられており、中國語および英語にそれぞれレナート電灯口、ドロワー電灯口と記されている。さらに、図第1の前面にはフレグマツトコードに記されたコード電氣を電氣接続するコード電氣取付（口）も取り付けられており、外面に口が電氣取付用又は電氣取付用の電氣取付の電氣取付入力するためのケーブル下り口が取り付けられている。

前年より一歩上り、第3期に達しようだ、
両品（異種）の増産計画、第5期に達しようだ

RAM-105000Y3.

8と、ドロワー5枚の横断面するドロワー組立
 図表23。キーボード2枚の各キー番号が入れ
 られるキーボード入力図面表24。両図表3Aの表
 データを参照する横断面図面表25。シート4
 とドロワーナルの両面表(両面表)や表図表の両
 面表図面表を印刷するソフトプログラム表26の
 印刷データを添付するプリンタ制御図面表27。キ
 ーパッド7枚のキー入力される両面表や印刷図
 面表の両面表データが入力されるキーパッド入力図
 面表28。キーボード両面表29にて図面表に図表
 72枚のキーボード両面表が入力されるキーボード
 両面表表26。および各図面表等としてキーボード
 両面表を中央システムコンピュータ27に図面表表28
 を介して図面表表にインターフェース28の両面表
 データを27。印刷図77を介して図面表に図
 4に図面表されている。

日本自動車工業会が、27日、東京で開かれた記者会見で、
 日本自動車工業会が、27日、東京で開かれた記者会見で、
 日本自動車工業会が、27日、東京で開かれた記者会見で、

の用字キーで、各用字に附属したコードを入力すると共に使用するプリンター、合計キー、調整で感失したときの用字キーである選ノ用字キー、シフトキー等と同時に用字キーとして使用するフレージングの用字キーの部に、キーパッドにて各用字のキーを入力する丁上キー、13等の各用字のフランクシフトキーが配列されている。

第3期に、クレジット組本間のプリアップが完成
であり、QFUI4は、新制度等を内定し、キ
ャード2枚の流入目標に対して各期の必要
資金を算出すると共に、アドレスバス18、データ
バス18、制御バス17からしてプログラムの固
定データを記憶するROM18、このクレジット
装置で駆動した各商品（刊物）の基が本報、厚
紙版を各商品に供給する巻頭ファイルー
ムの等に固定した巻頭（巻頭）の合計を巻頭と算出
する合計をキャード2枚の必要キャードとびキ
ャード2枚のキャード入力の間に必要データを一
括記憶する固定プログラムを記憶データを記憶する

形勢、金貨の凶暴、金貨法の施行等として昭和
十一年、ノード問題等又口説金貨の紛争が
等々に際して発生する際、可成り慎重が記
されてゐる。

し、ついで、各クレジット組合員において既述の
 国の取組に於いて国等に対するクレジット取組
 における役割分担を定む。

すなわち、P1にてコード送信機からコード
受信機までの72間のコード管線が入力すると、既
にキーパッドから送信機にキー送信による送信機
が入力するのを知り、明瞭受信が入力されると、
コード受信と明瞭受信とを結合して送信機として送信
機28を介してホストコンピュータ27へ高出
して、ホストコンピュータ27からの送信機を受
け、なお、コード受信機に毎区間毎が置かれて
いる場合はクレジット日本銀行で地区毎のチェ
ックを行う場合がある。

ホストコンピュータ27は組合せ部が入る
てに入れたカード番号でカードファイル30内
を検索して、該当カード番号に対応して記録され

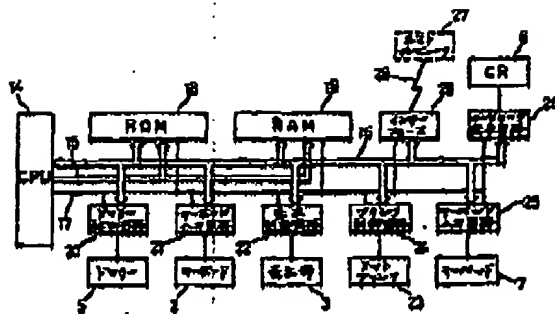
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(b)

REF ID: A66378 (B)



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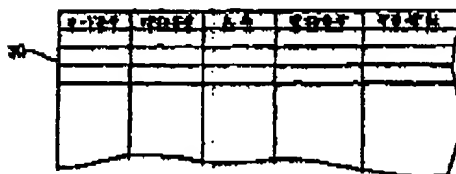
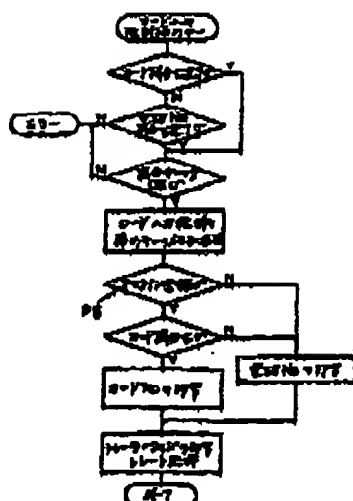
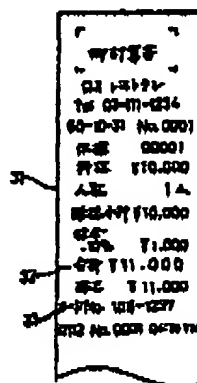


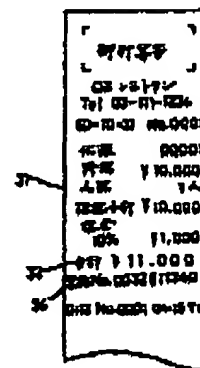
圖 4-3



200 6 200



3 7 4



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Specification

1. Title of the invention: Credit card system

2. Claims

(1) A credit card system in which, when an external controller storing a card file, including sale approval/disapproval information for each credit card, and a credit terminal are connected on an online basis, card information including the credit card number that is read by a card reader of the aforementioned credit terminal, along with a PIN (personal identification number) keyed in by a customer, is sent as inquiry information to the aforementioned external controller and sale registration is executed at the aforementioned credit terminal based on the sale approval/disapproval information for the credit card in question, returned from the external controller, wherein the aforementioned external controller has a means of storing inside the aforementioned card file the aforementioned sale approval/disapproval information for each card, along with the card number, the PIN, and another unique number for identifying the credit card; the aforementioned credit terminal has a means of sending two (one of which must be the PIN) out of the aforementioned three numbers stored in the aforementioned card file when they are keyed in, to the aforementioned external controller as inquiry information when said credit terminal is connected online; and the aforementioned external controller has a means of sending the sale approval/disapproval information corresponding to the credit card in question to the aforementioned credit terminal when the two numbers entered are verified to have been recorded in the region of the aforementioned card file corresponding to the credit card in question.

(2) A credit card system in which, when an external controller storing a card file, including sale approval/disapproval information for each credit card, and a credit terminal are connected on an online basis, card information including the credit card number that is read by a card reader of the aforementioned credit terminal, along with a PIN keyed in by a customer, is sent as inquiry information to the aforementioned external controller and sale registration is executed at the aforementioned credit terminal based on the sale approval/disapproval information for the credit card in question, returned from the external controller; wherein the aforementioned external controller has a means of storing inside the aforementioned card file the aforementioned sale approval/disapproval information for each card, along with the card number, the PIN, and another unique number for identifying the credit card; the aforementioned credit terminal has a means of sending two (one of which must be the PIN) out of the aforementioned three numbers stored in the aforementioned card file when they are keyed in, to the aforementioned external controller as inquiry information when said credit terminal is connected online; the aforementioned external controller has a means of sending the sale approval/disapproval information corresponding to the credit card in question to the aforementioned credit terminal when the two numbers entered are verified to be recorded in the region of the aforementioned card file corresponding to the credit card in question; and the aforementioned credit terminal has a number-printing means for printing the

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number other than the PIN that was keyed in at least on the journal or both the journal and receipt on which the sale data, such as the total monetary amount, is to be printed in response to the operation of a sale-settlement key.

(3) A credit card system in which, when an external controller storing a card file, including sale approval/disapproval information for each credit card, and a credit terminal are connected on an online basis, card information including the credit card number that is read by a card reader of the aforementioned credit terminal, along with a PIN keyed in by a customer, is sent as inquiry information to the aforementioned external controller and sale registration is executed at the aforementioned credit terminal based on the sale approval/disapproval information for the credit card in question, returned from the external controller; wherein the aforementioned external controller has a means of storing inside the aforementioned card file the aforementioned sale approval/disapproval information for each card, along with the card number, the PIN, and another unique number for identifying the credit card; and the aforementioned credit terminal has a sale-approving means that, when one of the numbers other than the PIN out of the aforementioned three numbers stored in the aforementioned card file is keyed in while said credit terminal is offline, approves the sale for said number, as well as a number-printing means for printing the keyed-in number at least on the journal or on both the journal and receipt on which the sale data, such as the total monetary amount, is to be printed in response to the operation of a sale-settlement key.

3. Detailed explanation of the invention

[Industrial field of application]

The present invention relates to a credit card system in which sales are registered using credit cards; and more particularly to a credit card system that authorizes a credit card sale, even if the customer has forgotten to bring his/her credit card, by having the customer enter another unique number such as a telephone number.

[Prior art]

Ordinarily, in a credit card system, each credit terminal is online with the card-issuing company's host computer, which acts as an external controller, via a telephone line or the like. This host computer is provided with card files for individual credit cards, containing card numbers, names, PINs, sale approval/disapproval information, etc. Each credit terminal uses a card reader [to read] the 72-digit card information or the like, including card number, etc., recorded in a credit card, and sends this information along with a PIN entered by the customer using a keypad, etc. to the aforementioned host computer as inquiry information. The host computer searches for a card file using the card number contained in the inquiry information that has been entered, and if the entered PIN is verified to match the PIN that has been stored for the corresponding card number, the host computer returns the sale approval/disapproval information for said card number to said credit terminal as response information.

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Having received the response information from the host computer, the credit terminal enables a credit sale for the merchandise purchased by the customer only if the response information indicates sale approval. That is, a key operation on the keyboard for authorizing card settlement is enabled. On the other hand, if the response information indicates sale disapproval, the credit sale cannot be completed, and a key operation on the keyboard for cash settlement is enabled.

[Problems that the invention is to solve]

However, some of the credit card systems with the configuration described above have the following problems. In some credit card systems, credit card ownership rights are restricted to an extremely limited number of creditworthy people, in which case, a cashier operating a credit terminal can easily identify those customers. However, in such a credit card system, if a customer has forgotten to bring his/her credit card, credit card settlement cannot be made at the credit terminal as described above, and as a result, the customer must pay cash. Therefore, there is the risk of poor customer service.

The present invention has been developed in view of the aforementioned circumstance, and its objective is to provide a credit card system that authorizes a credit card sale, even if the customer has forgotten to bring his/her credit card, by having the customer enter another number unique to the card, such as a telephone number, in addition to a PIN, for the purpose of personal authentication, thereby improving customer service.

Another objective of the invention is to provide a credit card system that authorizes a credit card sale for a customer by having the customer key in only the aforementioned additional number unique to the card, if the credit terminal happens to be offline from an external controller.

[Means of solving the problems]

In the credit card system according to the present invention, a unique number for identifying the credit card, in addition to the sale approval/disapproval information, card number, and PIN for each credit card, is stored inside a card file in an external controller, and when two out of the aforementioned three numbers stored in the card file, one of which must be the PIN, are entered into a credit terminal during online connection, these two numbers are sent as verification information to the external controller, and the external controller returns sale approval/disapproval information to the credit terminal if the two entered numbers are verified to be stored in the area of the aforementioned card file for the credit card in question.

In another invention, in addition to the aforementioned invention, the credit terminal that has received sale approval/disapproval information registers the sale based on this sale approval/disapproval information, and at the same time prints the keyed-in number other than the PIN, at least on the journal or on both the journal and receipt on which the sale data, such as the total monetary amount, is to be printed in response to sale-settlement key operations.

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In still another invention, a unique number for identifying the credit card, in addition to sale approval/disapproval information, card number, and PIN for each credit card, is stored inside a card file in an external controller; and when one out of the three numbers stored in the card file, excluding the PIN, is entered into a credit terminal while it is offline, the credit terminal authorizes the sale for this number and prints the aforementioned keyed-in number at least on the journal or on both the journal and receipt on which the sale data, such as the total monetary amount, is to be printed in response to sale-settlement key operations.

[Operation of the invention]

With a credit card system thus configured, if the credit terminal is online with the external controller, then even when the customer has forgotten to bring a credit card, the customer keys in two numbers, i.e., the PIN, along with the card number or an additional unique number stored in a card file, and these two numbers are sent to the external controller as inquiry information; the external controller then returns sale approval/disapproval information. Therefore, the credit terminal can complete the credit sale based on this approval/disapproval information.

According to the effect of the second invention, in addition to the aforementioned effect, when a credit sale is made without a credit card, the registered information, such as the total monetary amount, along with the number that was keyed in, except for the PIN, are printed at least on a journal.

According to the third invention, when the credit terminal is offline from the external controller, having the customer key in the card number or PIN stored in the card file will enable the credit sale; furthermore, the registered data, along with the keyed-in number, is printed at least on a journal.

[Embodiments]

An embodiment of the present invention will be explained below with reference to drawings. Fig. 1 is a perspective diagram illustrating the credit terminal incorporated into the credit card system in this embodiment. This credit terminal also has the functions of an electronic cash register that can handle ordinary cash transactions in addition to credit sales based on credit cards. Note that in the explanation, the credit terminal is installed in a restaurant. That is, a keyboard 2 having keys for registering various types of sales is provided in front of a frame 1. The top area of the frame 1 is provided with a display 3 for electronically displaying multiple type marks for indicating a product (menu item) code, the unit price, the total amount, etc. and various operation states; and a receipt-issuing port 4 and a drawer 5 are provided in the middle and lower areas, respectively. Additionally, a card reader (CR) 6 for reading the card information stored in credit cards is installed to the side of the frame 1. A keypad 7 is also externally provided for customers to key in their PIN or another number unique to the customer, such as a telephone number.

As shown in Fig. 2, the aforementioned keyboard 2 is provided with various settlement keys, such as numeric keys 8 for entering the product (menu item) unit price and quantity, a PLU key 9 to be

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used when entering the code assigned to each product, a subtotal key 10, an amount tendered/current total key 11 which is a settlement key for cash sales, and a credit-sale-total key 12 which is used as the settlement key for credit card sales, in addition to various function keys, such as a TEL key 13 for keying in a telephone number using the keypad 7.

Fig. 3 is a block diagram of a credit terminal. A CPU 14 contains a computation circuit, etc., and carries out various types of computation based on the information that is input from the keyboard 2, and also controls, via an address bus 15, a data bus 16, and a control line 17, ROM 18 which stores fixed data, such as programs, and RAM 19 which stores variable data from the registration file, for registering the unit price and quantity of each product (mean item) sold using this credit terminal; from a totalizer, for computing the total monetary amount for the products (mean items) sold to each customer; and from a numeric buffer, etc., which temporarily stores the numeric data keyed in from the numeric keys 8 of the keyboard 2 and the keypad 7.

Additionally, a drawer drive circuit 20 for opening and closing the drawer 5; a keyboard input circuit 21 into which various key signals from the keyboard 2 are to be input; a display control circuit 22 for sending display data to the display 3; a printer control circuit 24 for sending print data to a dot printer 23, which prints product names (mean item names), unit prices, and total amounts, etc. on receipts and journals; a keypad input circuit 25 into which numeric data, such as the PIN and telephone number, etc. keyed in from the keypad 7, are to be input; a card reader reading circuit 26 into which the 72-digit card information, for example, read by the card reader 6 is to be input; and an interface 29 connected via a telephone line 28 to a host computer 27, which acts as the external controller for the card-issuing company, etc. are connected to the aforementioned CPU 14 via the data bus 16 and the control line 17.

Fig. 4 illustrates a card file 30 formed in the storage area of the aforementioned host computer 27; for each credit card, the card number, the PIN, the member's name, a telephone number as a number unique to the member, and the sale approval/disapproval information generated based on card theft, insufficient funds, etc. are stored in this card file 30.

Then, each credit terminal authenticates the identity of the customer for the credit sale, according to the flow illustrated in Fig. 5.

That is, when the 72-digit card information, including the card number, is input from the card reader 6 in Step P1, the credit terminal waits for the customer to key in his/her PIN from the keypad 7. When the PIN is entered, the credit terminal sends the card number and the PIN as inquiry information to the host computer 27 via the telephone line 28, and waits for the host computer 27 to respond with information. Note that if the PIN is contained in the card information, the PIN may be checked inside the credit terminal.

When the host computer 27 receives the inquiry information, it searches through the card file 30

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using the card number that has been entered, and if the host computer 27 verifies that the PIN stored for the card number in question matches the PIN that has been entered, it reads out the sale approval/disapproval information for the card number in question and sends it to the credit terminal as response information. Note that if the PIN does not match, the host computer 27 sends response information indicating sale disapproval to the credit terminal.

In Step P2, the credit terminal that receives the response information from the host computer 27 within a preset time limit, checks in Step P3 whether the received information is the response information corresponding to the inquiry information containing the card number. If the information is in response to the inquiry containing the card number, the credit terminal turns on the try mark for card inquiry in the display 3.

If no card information is entered from the card reader 6 in Step P1 and if the TEL key 13 of the keyboard 2 is pressed in Step P4, the credit terminal judges that the customer has forgotten to bring the credit card, and in Step P5 checks whether the credit terminal is online with the host computer 27 via the telephone line 28. If it is online, the credit terminal waits for a number consisting of a total of 14 digits, i.e., a 10-digit telephone number, including an area code, plus a 4-digit PIN, to be entered from the keypad 7. When a 14-digit number is entered, the credit terminal divides this number into a 10-digit telephone number and a 4-digit PIN and sends them as inquiry information to the host computer 27.

When the host computer 27 receives inquiry information consisting of a telephone number and a PIN, it searches through the card file 30 using the PIN. If the telephone number stored in correspondence to the PIN in question is verified to match the telephone number entered, the host computer 27 sends the card number and sale approval/disapproval information, stored in correspondence to the PIN in question, to the credit terminal as response information. Note that if the telephone number does not match, the host computer 27 naturally sends response information indicating sale disapproval to the credit terminal.

Then, if the credit terminal receives the response information within the preset time limit, and if the response information is determined to be in response to the inquiry containing the telephone number in Step P3, the credit terminal turns on the try mark for telephone number in the display 3.

Furthermore in Step P5, if this credit terminal is not connected to the host computer 27 because of a failure in the telephone line 28 or the like, the credit terminal judges that the cashier has determined the customer to be the true owner of the credit card, and turns on the try mark for telephone number in the display 3 after verifying that a 10-digit telephone number has been entered from the keypad 7.

When all the products (merchandise) sold to one customer have been entered and the credit total key 12, which indicates credit card sale, is pressed as the settlement key, a settlement key process is executed according to the flow diagram in Fig. 6. That is, when the credit total key 12 is pressed, a

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series of memory processes are executed when the sale to the customer is approved based on inquiry using a card number or a telephone number, and its results. In other words, the total amount accumulated in the totalizer is printed on a receipt and a journal by the dot printer 23, and is also added to the credit sale amount memory in the internal storage area. Then, in Step P6, if this credit terminal is online with the host computer 27, a card number is printed on the receipt and the journal in response to a normal card-number-based inquiry, and a telephone number is printed on the receipt and the journal in response to a telephone-number-based inquiry.

Next, a trailer line consisting of the cashier number, the receipt number, and the registration time, etc. is printed. Afterwards, only the receipt is sufficiently fed forward, cut off, and discharged from the receipt-issuing part 4.

Note that if the credit terminal is offline from the host computer 27 in Step P6, the telephone number entered from the keypad 7 is printed on the receipt and the journal.

Let us first assume a case in which the customer has brought a credit card to a credit terminal in a credit card system thus configured. In this case, when the credit card is inserted into the card reader 6 and a PIN is entered from the keypad 7, the card number and the PIN are checked against the card file 30 in the host computer 27. When the cashier has entered all the products (menu items) sold to that customer and presses the credit total key 12, the total amount 32 and the card number 33 are printed on a receipt 31 as shown in Fig. 7.

Next, let us assume a case in which the customer has forgotten to bring a credit card and the credit terminal is online. When the customer enters a telephone number and a PIN using the keypad 7 after the cashier has pressed the TEL key 13 of the keyboard 2, this telephone number and PIN are checked against the card file 30 in the host computer 27. Then, when the cashier has finished registering each product and presses the credit total key 12, the total amount 32 and a telephone number 34 are printed on the receipt 31 and the journal as shown in Fig. 8.

Next, let us assume a case in which the customer has forgotten to bring a credit card and the credit terminal is offline. Since inquiries to the host computer 27 using the various numbers cannot be performed, the customer enters only a telephone number from the keypad 7. Then, when the cashier presses the credit total key 12, the telephone number 34 is printed below the total amount 32 in the same way as when the credit terminal was online, as shown in Fig. 8.

As explained above, even when the customer has forgotten to bring a credit card, the card number can be determined by having the customer key in a PIN along with another number unique to the customer, i.e., a telephone number unique to the credit card, when the credit terminal is online, and a credit sale can be made to this customer.

Moreover, if the credit terminal happens to be offline, a credit sale can still be completed by having

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the customer key in only a telephone number from the keypad 7.

Thus, a credit sale can be completed in this way even when the customer has forgotten to bring a credit card, thereby improving the level of service to customers.

Note that when a credit sale is made without a credit card, the customer's telephone number is printed on the receipt and the journal, and thus, the fact that a sale was made without a credit card can be easily recognized during the settlement at the end of the day, for example.

Note also that the application of the present invention is not limited to the aforementioned embodiments. It is also possible to have the customer who has forgotten to bring a credit card enter a card number instead of a telephone number from the keypad 7.

[Effects of the invention]

As explained above, the present invention enables a credit sale even when the customer has forgotten to bring a credit card, by having the customer key in a PIN plus another number unique to the card, such as a telephone number, for the purpose of user authentication, and thus improves the level of service to customers.

Additionally, even when the credit terminal is offline, a credit sale can still be completed by having the customer key in a number other than a PIN, further improving the level of service to customers.

4. Brief explanation of drawings

The drawings illustrate a credit card system related to an embodiment of the present invention. Fig. 1 is a perspective diagram illustrating a credit terminal. Fig. 2 shows how the keys are arranged on a keyboard. Fig. 3 is a block diagram of the credit terminal. Fig. 4 illustrates a card file in the host computer. Fig. 5 and Fig. 6 are flow diagrams showing operations. Fig. 7 and Fig. 8 show receipt-printing formats.

- 2 ... Keyboard
- 3 ... Display
- 5 ... Drawer
- 6 ... Card reader
- 7 ... Keypad
- 8 ... Numeric keys
- 11 ... Amount tendered/current total key
- 12 ... Credit sale total key
- 13 ... TEL key
- 14 ... CPU
- 19 ... RAM

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23 ... Dot printer
27 ... Host computer (external controller)
30 ... Card file
31 ... Receipt
32 ... Total amount
33 ... Card number
34 ... Telephone number

Agent: Takehiko Suzue, patent attorney

Fig. 1

Fig. 5

(Card & telephone number inquiry)

<Card input?>

<PIN input?>

<Telephone no. key?> (Other settlement operation)

[Sends card number and PIN
to computer and receives response.]

<Online registration?>

<Telephone no. input?>

<Telephone no. + PIN input?>

<Response?>

[Sends Telephone no. and PIN inquiry
to computer and receives response.]

<Time-out?>

(Error)

<Card inquiry?>

[Turns on try mark for Telephone no.]

[Turns on try mark for card.]

(END)

Fig. 2

[Receipt feed][Receipt feed][Date]

[Change/Collected][#/Training][Alternate][Amount] [Sale][Discount][Take-out]

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13: [TEL No.][Authentication]

Cases1	Discount 3	Customer type
Specification cancellation 1	Discount 2	Number of customers
Gift certificate	Discount	Slip No.
Restaurant location	Menu item	Issue receipt

8:

C		X
7	8	9
4	5	6
1	2	3
0		10,000-yen certificate

12:

Credit sale total	Illegal 1/Tax
Total 5	Total 4
Total 3	Total 2

10: [Subtotal]

11: [Amount tendered/Current total]

Fig. 3

- 5: Drawer
- 2: Keyboard
- 3: Display
- 23: Dot printer
- 7: Keypad
- 20: Drawer drive circuit
- 21: Keyboard input circuit
- 22: Display control circuit
- 24: Printer control circuit
- 25: Keypad input circuit
- 26: Card reader reading circuit
- 27: Host computer
- 29: Interface

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Fig. 4

Card number	PIN	Name	Telephone number	Approval/disapproval information

Fig. 6

(Card input forced settlement key)
<Is card inquiry completed?>
(Error) <Is telephone-number-based inquiry completed?>
<Is inquiry check OK?>
[Memory processing for card input forced settlement key]
<Is this offline registration?>
<Is this card inquiry?>
[Prints a card number.] [Prints a telephone number.]
[Prints a trailer line. Issues a receipt.]
(END)

Fig. 7

Customer Receipt
Restaurant ABC
Tel. 03-111-1234
60-10-31 No. 0001
Slip: 00001
Menu item: ¥10,000
Number of customers: 1
Taxable subtotal: ¥10,000
Tax
10%: ¥1,000
Total: ¥11,000
Shareholder[sic]: ¥11,000
Card No.: 105-1237
0112 No. 0001 04:15 TM

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Fig. 8

Customer Receipt
Restaurant ABC
Tel. 03-111-1234
60-10-31 No. 0001
Slip: 00001
Menu item: ¥10,000
Number of customers: 1
Taxable subtotal: ¥10,000
Tax
10%: ¥1,000
Total: ¥11,000
Telephone No.: 0032611340

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CERTIFICATION OF ACCURACY

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JUNE 11, 2003

A handwritten signature in black ink, appearing to read 'Mariam Nayiny', is written over a horizontal line.

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